

REMARKS

In the Office Action mailed February 7, 2007 from the United States Patent and Trademark Office, the Examiner rejected claims 1-5, 7-19 and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 1-5, 7, 8, 11, 13, 15, 16, 18 and 19 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Wells et al; and claims 9, 10 and 12 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wells et al. in view of Smith et al.

Functional Language/Claim Objections

Applicant has amended claim 9 to include a period, and requests that the claim objection be withdrawn at this time.

Claim Rejections Under 35 U.S.C. § 112

Applicant thanks the Examiner for noting the indefinite language throughout the claim set. Applicant has addressed each of the concerns identified by the examining attorney by amending claims 1-5, 7-19 and 25 in order to definitely and particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Rejections Under 35 U.S.C. § 102

The prior cited art fails to teach or suggest the claim or limitations of the present invention. "A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described, in a single prior art reference." Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Further, to anticipate a claim "[t]he identical invention must be shown as a complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

The method disclosed in Wells comprises providing "steps gradually sloping outwardly in the direction of flight" (see claim 1 FIG. 3). Accordingly, Wells does not teach nor suggest the provision of "orthogonal pressure recovery drops" as does the independent claims of the present invention. Thus, the present invention is novel over Wells.

Rejections Under 35 U.S.C. § 103(a)

Applicant respectfully submits that the claim set as provided herein is not made obvious by the cited references. The standard for a Section 103 rejection is set forth in M.P.E.P 706.02(j), which provides:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Applicant respectfully submits that the references cited by the Examiner do not teach or suggest the limitations claimed in the present invention. In particular, independent claim 1 as presently amended includes limitations relating to a fuselage comprising: a frontal fuselage portion that leads through a fluid; an outer fuselage surface relating with said frontal fuselage portion that receives fluid flow thereon; at least one fluid flow regulator featured and operable with said outer fuselage surface and extending at least a partial distance around said fuselage, said fluid flow regulator comprising: a leading surface; a trailing surface; an orthoganol pressure recovery drop extending a pre-determined distance between said leading and trailing edges to form a down step, said pressure recovery drop comprising at least one drop face of a calculated distance, said fluid flow regulator functioning to regulate existing pressure gradients along said fuselage to optimize and equalize said fluid flow and to reduce the separation potential of said fluid; a sub-atmospheric barrier generated at the base of said drop face as said fluid encounters and flows over said pressure recovery drop, said sub-atmospheric barrier comprising a low pressure area of

fluid molecules having decreased kinetic energy that serve as a cushion between said higher kinetic energy fluid molecules in said fluid and the molecules at said outer fuselage surface to facilitate laminar flow and assist in the reduction of the separation potential of said fluid; and a trailing edge that defines and extends from the base of said pressure recovery drop that provides a trailing flow boundary for said fluid.

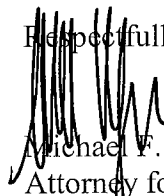
Wells in combination with Smith fail to disclose an orthoganol pressure recovery drop. Smith discloses an air foil comprising a leading edge, a trailing edge, a vertical surface and “a member or flap 19 which extends between the offset 18 and the trailing edge 15 and is hingably affixed to the air foil at or adjacent to the trailing edge 15, the member or flap 19 being movable and the arc based on the point of attachment thereof with the trailing edge of the air foil.” Smith, col. 2, Ins. 59-64. Smith’s hingably affixed air foil may be actuated between a first upper position and a lower position. In its upper position, the air foil is contiguous with the leading edge and assumes a positive camber. In a lower position “it will form a generally negative camber position of the air foil. Smith, col. 3, Ins. 10-13. Because the planar surface assumes either a positive or negative camber in association with the first or second position, the angle at which the air foil intersects the vertical surface is altered. An orthoganol pressure recovery drop may be achieved only if the vertical surface abuts the hingably affixed air foil at a right angle. However, Smith’s invention would be destroyed if the angle of attac and camber of the flap were modified to intersect with the vertical surface at a right angle. Smith discloses a system for hingably affixing an air foil, but fails to disclose an orthoganol pressure recovery drop. Accordingly, the Applicant respectfully requests that all the objections over Smith and Wells be withdrawn at this time.

CONCLUSION

Applicant(s) submits that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicant(s) requests favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

DATED this 7 day of May, 2007.

Respectfully submitted,


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